

## REMARKS

Applicant would like to thank the Examiner for the substantive review in this case. In the Office Action dated November 30, 2010, the Office rejected claims 7-12. More specifically:

- Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Japan Patent No. 11-345,732 to Okuda et al. ("Okuda") in view of German Patent No. DE 2,530,312 to Hartwig ("Hartwig");
- Claims 10-11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Okuda in view of Hartwig and U.S. Patent No. 6,910,360 to Stjepan et al. ("Stjepan");
- Claim 8 was rejected under 35 U.S.C. §103(a) as being obvious over Okuda et al. in view of Hartwig and U.S. Patent No. 5,644,486 to Chang et al. ("Chang").
- Claims 9 and 12 were rejected under 35 U.S.C. §103(a) as being obvious over Okuda et al. in view of Hartwig, Stjepan and Chang.

Independent claim 7 has been amended to further define an embodiment. As recommended by the Examiner, claim 7 has been amended to further define the movement of the pressure head as determined by the control unit. Support for the amendments to claim 7 can be found in the specification as originally published at paragraphs [0026] and [0025] - [0028]. Claim 13 has been newly added. As recommended by the Examiner, claim 13 includes the subject matter of previously pending claim 7 along with additional limitations further defining the structure of the pressure head in connection with the movement of the pressure head. Support for the newly added claim 13 can be found in the specification as originally published at paragraphs [0011] - [0014], [0016] and [0025] - [0028]. Accordingly, no new matter has been added as a result of these amendments.

Upon entry of these amendments, claims 7-13 will remain pending. For the reasons set forth herein below, Applications request that the §103(a) rejections associated with pending claims 7-12 be withdrawn.

### Claims 7-12

As amended, independent claim 7 is nonobvious over Okuda in view of Hartwig because the cited references, either alone or in combination, fail to teach or suggest each and every

limitation of claim 7. More particularly, the combination of Okuda and Hartwig fails to teach or suggest, among other things, the following limitations of claim 7:

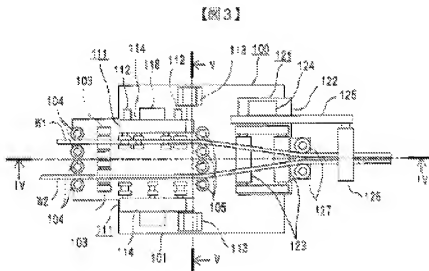
- A control unit configured to receive measurements related to an electrical induction coil to be formed; and
- A pressure head operably connected to the control unit and mounted on a support on which the pressure head pivots between a resting position and a working position, wherein the working position of the pressure head is determined by a comparison by the control unit of a real position of the pressure head against a theoretical position of the coil to be formed as determined by the control unit from the measurements, the pressure head having a vertical axle and a horizontal axle;

Okuda teaches an arrangement for producing a wire coil for electrical equipment. It should again be noted that Applicant is referring to the machine translation of Okuda provided by the Examiner in the Office Action dated October 3, 2008, as is best understood by the Applicant. Okuda provides for a coil producing technique that takes wire from two spools that may be wound at different pressures, combines the wires and winds the two wires into a coil at a constant pressure. *See* Okuda at [0068]. These two wires are combined by vertical and horizontal rollers (items 126 and 127 in the figures) which form a pressure head that is rigidly mounted to a support arm (item 122 in the figures). *See id.* at [0027]. A single hydraulic cylinder (item 124 in the figures) is used to move horizontal roller 126. Once the two wires are combined, a coil is then formed by a coil former (item 81 in the figures), not the vertical and horizontal rollers. Rather, the horizontal and vertical rollers are merely used to combine the two wires. *See id.* at [0029]. Additionally, the Examiner acknowledges that Okuda lacks a teaching of at least one hydraulic cylinder attached to both the vertical and horizontal axles and a control unit, and looks to Hartwig.

It should also be noted that in previous Office Actions (see, for example, the Office Action dated February 2, 2010) the Examiner acknowledged that Okuda fails to teach a control unit. However, in the outstanding Office Action, the Examiner alleges Okuda does teach a control unit. The item the Examiner is referring to is defined by Okuda as a rise-and-fall cylinder 124. The rise-and-fall cylinder 124 functions, at best, as a hydraulic cylinder, causing the roller 126 of Okuda to move vertically. There is no suggestion in Okuda that this functions as the claimed control unit, specifically a control unit configured to receive measurements related

to an electrical induction coil to be formed. Similarly, the rise-and-fall cylinder **124** does not perform any comparisons (i.e., the comparison by the control unit of a real position of the pressure head against a theoretical position of the coil to be formed as determined by the control unit from the measurements) as required by claim 7. As such, Okuda does not disclose a control unit as required by claim 1. Additionally, by presenting contradictory arguments, the Office invalidates the validity of the rejections. Whether a reference teaches a component is a matter of fact, not opinion. By revising a rejection to include an element previously acknowledged as being lacking in the reference, the Office's damages the credibility of the rejection. "[T]he agency's contradictory findings of technological facts based on shifting perceptions of the prior art impeach the deference normally owed to administrative findings of fact." See *In re Vaidyanathan*, Appeal No. 2009-1404 (Fed. Cir. May 19, 2010).

In the Response to Arguments (see page 8 of the Office Action), the Examiner argues that Okuda teaches a vertical wheel comprising at least one horizontal disc positioned such that when conductor material is fed into the pressure head the conductor material maintains contact with the vertical wheel. The Examiner asserts that Okuda teaches a vertical wheel **126** and an opposing horizontal disc **123** which "is horizontal and opposes item **126**." See Office Action at 8:15-16. Both reference items **123** and **126** are illustrated in FIG. 3 of Okuda (reproduced below).



As shown in FIG. 3, both reference items **123** and **126** are oriented identically, in this case vertically. Item **123** is not horizontal and opposing reference item **126** as suggested by the Examiner. Rather, both reference items **123** and **126** are perpendicularly arranged to one another

and thus cannot be alternately vertical or horizontal. As such, the Examiner's argument is not supported by Okuda as Okuda fails to teach a vertical wheel comprising at least one horizontal disc as is required by claim 1.

Hartwig discloses an arrangement for pressing the turns of an axial progressive winding coil for electrical equipment. *See* Hartwig at 1:1-2. It should be noted that Applicant is referring to the machine translation of Hartwig provided by the Examiner in the Office Action dated October 3, 2008, as is best understood by Applicant. Hartwig provides for a more compact pressure head by removing the pressure cylinders that provide the force to push the pressure head against the coil to a location away from the head. The cylinders also provide for a constant transfer of pressure to the pressure head, and thus to the coils via a mounting rod. This provides for a more compact pressure head, allowing for more compact coils. *See id.* at 3:9-13. In order to provide this constant pressure, Hartwig rigidly mounts the pressure head to the mounting rod such that the head cannot pivot, as pivoting would result in an unexpected change of pressure as applied at the pressure head. Similarly, as the head of Hartwig cannot pivot, Hartwig cannot provide a feeder that mounted on the same support as the pressure head which feeds the conductor tangentially to the vertical and horizontal wheels as the wheels cannot rotate about the coil as it is formed. *See id.* at 5:3-7.

The Examiner relies on Hartwig to teach a hydraulic cylinder connected to a control unit as well as both the horizontal and vertical axes of the pivoting pressure head of Okuda. As discussed above, Okuda fails to disclose a pivoting pressure head having at least one vertical wheel comprising at least one horizontal disc and at least one horizontal wheel positioned such that a conductor material passing there through is formed into a coil. Additionally, Hartwig is silent on the concept of a pivoting pressure head, and thus, provides no teaching for applying a hydraulic cylinder to the horizontal and vertical axes of a pivoting pressure head. As best understood by the disclosure of Hartwig, the hydraulic cylinder is attached to only a single axle. *See id.* at 2:1-6. Thus, at best, the combination of the teachings of Okuda and Hartwig would result in a rigidly mounted pressure head having a hydraulic cylinder attached to either the horizontal or vertical axle, not both as is required by claim 7.

In contrast, claim 7 requires a pressure head mounted on a support on which the pressure head pivots from a resting position to a working position based upon a comparison by a control unit of the real position of the real position of the pressure head and the theoretical position of

the coil to be formed. This, along with the claimed arrangement of the at least one vertical wheel comprising at least one horizontal disc, at least one horizontal wheel, and a hydraulic cylinder connected to both the vertical and horizontal wheels provides a means for the pressure head to produce suitable pressure for forming the coils without any added outside forces acted upon the pressure head by the support. Rather than merely providing a mounted pressure head having a hydraulic cylinder connected to either the horizontal or vertical axle as is taught by the proposed combination of Okuda and Hartwig, claim 7 requires the pressure head to be mounted on a support such that the at least one hydraulic cylinder is connected to the horizontal and vertical axes such that the pressure exerted by both axes is controlled by the control unit. Thus, the system of claim 7 includes a control unit may regulate the pressure exerted by wheels mounted on the axes during the formation of a coil based upon measurement information received about the coil to be formed. Neither of the cited references, whether considered alone or in combination, suggest such a result.

Accordingly, for at least these reasons, claim 7 is nonobvious over the combination of Okuda in view of Hartwig because the cited references fail to teach or suggest each and every limitation of claim 7. Further, claims 8-12, which depend from and incorporate all of the limitations of claim 7, are likewise nonobvious over the cited references. *See* MPEP §2143.03 (stating that if an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious). Accordingly, Applicant requests that the rejections associated with claims 7-12 be withdrawn.

### **Claim 13**

Newly added claim 13 is novel and non-obvious over the cited prior art; whether considered alone or in any combination. Specifically, claim 13 requires:

- A control unit configured to receive measurements related to an electrical induction coil to be formed; and
- A pressure head operably connected to the control unit and mounted on a revolving arm about which the pressure head pivots between a resting position and a working position in response to a command from the control unit, wherein the working position of the pressure head is determined based upon a comparison by the control unit of a real position of the pressure head against a theoretical position of the coil to be formed as

determined by the control unit from the measurements, the pressure head having a plurality of vertical axes and a plurality of horizontal axes.

For substantially the same reasons set forth above in regard to claim 7, claim 13 is novel and non-obvious over the prior art. Additionally, claim 13 further defines the pressure head as having multiple vertical and horizontal axes, each of which includes either a horizontal wheel or a vertical wheel. These features, along with the specific limitations related to the wheels, further defines the specific structure of the pressure head as suggested by the Examiner on page 9 of the Office Action. As such, Applicant requests that claim 13 be indicated as allowable over the cited prior art.

All of the stated grounds of rejection have been properly traversed, accommodated or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. There being no other rejections or objections, Applicant respectfully requests that the current application be allowed and passed to issue.

If the Examiner believes for any reason that personal communication will expedite prosecution of this application, I invite the Examiner to telephone me directly.

### AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for this Preliminary Amendment, or credit any overpayment, to Deposit Account No. 50-0436.

Respectfully submitted,

PEPPER HAMILTON LLP

A handwritten signature in dark ink, appearing to read 'John R. Brancolini', is written over the printed name.

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